Excerpt of 9VAC25-31-200.E.: (VPDES regulation)

E. Concentrated Animal Feeding Operations (CAFOs). The activities of the CAFO shall not contravene the Water Quality Standards, as amended and adopted by the board, or any provision of the State Water Control Law. There shall be no point source discharge of manure, litter or process wastewater to surface waters of the state except in the case of an overflow caused by a storm event greater than the 25-year, 24-hour storm. Agricultural storm water discharges as defined in subdivision C 3 of 9VAC25-31-130 are permitted. Domestic sewage or industrial waste shall not be managed under the Virginia Pollutant Discharge Elimination System General Permit for CAFOs (9VAC25-191). Any permit issued to a CAFO shall include:

1. Requirements to develop, implement and comply with a nutrient management plan. At a minimum, a nutrient management plan shall include best management practices and procedures necessary to implement applicable effluent limitations and standards. Permitted CAFOs must have their nutrient management plans developed and implemented and be in compliance with the nutrient management plan as a requirement of the permit. The nutrient management plan must, to the extent applicable:

a. Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;

b. Ensure proper management of mortalities (i.e., dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities;

c. Ensure that clean water is diverted, as appropriate, from the production area;

d. Prevent direct contact of confined animals with surface waters of the state;

e. Ensure that chemicals and other contaminants handled on site are not disposed of in any manure, litter, process wastewater, or stormwater storage or treatment system unless specifically designed to treat such chemicals and other contaminants;

f. Identify appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to surface waters of the state;

g. Identify protocols for appropriate testing of manure, litter, process wastewater and soil;

h. Establish protocols to land apply manure, litter or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater; and

i. Identify specific records that will be maintained to document the implementation and management of the minimum elements described above.

Correlation of nine elements to the specific parts of the permit:

Element a: Permit Part I B. 2 & 3, Permit Part II A 1, Permit Part II B 4, 5, & 6, Permit Part II A (NMP requirements), Permit Part II C 3 (Farm Operating Manual)

Waste Monitoring:
Rationale: § 62.1-44.17:1 E 4 and 9VAC25-192-70 and 9VAC25-31-200 E 1 The specific waste monitoring requirements are required by 9VAC25-192-70. Additionally, 9VAC25-31-200 E 1 requires the permittee to establish proper protocols to monitor waste.
Soil Monitoring:
Rationale: § 62.1-44.17:1 E 4 and 9VAC25-192-70 and 9VAC25-31-200 E 1. The specific soils monitoring requirements are required by 9VAC25-192-70. Additionally, 9VAC25-31-200 E 1 requires the permittee to establish proper protocols to monitor soils.

A. WASTE STORAGE

1. **Design and Operation:**
   a. Any liquid manure collection and storage facility shall be designed and operated to:
      (1) prevent point source discharges of pollutants to state waters except in the case of a storm event greater than the 25-year, 24-hour storm; and
      (2) provide adequate waste storage capacity to accommodate periods when the ground is frozen or saturated, periods when land application of nutrients should not occur due to limited or nonexistent crop nutrient uptake, and periods when physical limitations prohibit the land application of waste.
   b. If after the effective date of this permit, a waste storage facility is planned for construction, the the plans and specifications for the proposed waste storage facility must be submitted to the DEQ Regional Office for approval prior to construction.

B4. **Liquid Waste Level:** At earthen liquid waste storage facilities constructed below the seasonal high water table, the top surface of the waste shall be maintained at a level of at least two feet above the water table.
B5. **All liquid waste treatment or waste storage facilities** must maintain one foot of freeboard at all times, up to and including a 25-year, 24-hour.
B6. **All open surface liquid impoundments** shall have a depth marker which clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour storm event.

A. NUTRIENT MANAGEMENT

1. **Nutrient Management Plan (NMP) Requirements and Elements:** All CAFO owners or operators shall implement and retain on site a Nutrient Management Plan developed by a certified Nutrient Management Planner in accordance with §10.1-104.2 of the Code of Virginia and approved by the Department of Conservation and Recreation. The NMP shall be made available to Department personnel upon request. The NMP shall address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus loss to ground or surface waters. The NMP shall be enforceable through this permit. The NMP shall contain at a minimum the following information:
   a. Site map indicating the location of the waste storage facilities and the fields where waste will be applied, unless the fields are exempted in Part I C.6.;
   b. Site evaluation and assessment of soil types and potential productivities;
   c. Nutrient management sampling including soil and waste monitoring;
   d. Storage and land area requirements;

e. Calculation of waste application rates;
f. Waste application schedules; and
g. A plan for waste utilization in the event the facility is discontinued.

Element b: Application Addendum and Permit Part II B. 7. **Mortality Disposal at Liquid Waste Facilities:** Mortalities shall not be disposed of in any liquid manure or process wastewater system, unless alternative technologies are designed to handle mortalities and approved by the Department and must be handled in such a way as to prevent the discharge of pollutants to surface water. The Permittee shall record methods of mortality management and practices as required by Part I C.9.

Element c: Permit Part II B. 1. **Production Area Operation:** Water which has not come in contact with the pollutants from the production area must be diverted from the production area unless the waste storage facility is specifically designed to store or treat the water.

Element d: Permit Part II B. 3. **Confined Animals:** Prevent direct contact of confined animals with surface waters of the state.

Element e: Application Addendum and Permit Part II B. 2. **Chemicals and other contaminants handled at the facility** must not be disposed of in any manure, process wastewater, or storm water storage or treatment system unless such systems are specifically designed to treat such chemicals and other contaminants.

Element f: Permit Part I B 1. b. and Permit Part III B 1 & 2.
Best Management Practice(s) (BMPs) Monitoring:
Rationale: Required by: 9VAC25-31-200 E 1 f the requirements are to identify appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to surface waters of the state.

Permit Part III B 1 & 2. **LAND APPLICATION REQUIREMENTS**
1. **Buffer Zones:** Manure and process wastewater shall not be land applied within buffer zones.
a. Buffer zones at land application sites shall, at a minimum, be maintained as stated in the table below.
b. The buffer zone distance to maintain may be reduced for certain site features indicated in the table below if the following conditions are met:
(1) BMP(s) that when implemented will provide pollutant reductions equivalent or better than the reductions that would be achieved by a 100-foot wide buffer, or a 35-foot wide vegetated; and
(2) the BMP(s) has been approved by the Department.
2. **Best Management Practices (BMP):** If a BMP or BMPs are utilized, installed or constructed at the facility for water quality protection or in compliance with 40 CFR Part 412, the BMP or BMPs must be maintained onsite for the term of this permit or the life of the practice, whichever is shorter. Details regarding the purpose and maintenance of the BMP shall be included in the facility's Farm Operating Manual.

Element g: Permit Part II C 3 g The Farm Operating Manual shall include at a minimum the following information:
g. practices, procedures and methods which will be followed to monitor and analyze waste; and

Element h: Permit Part III A 1 (NMP)

A. NUTRIENT MANAGEMENT

1. **Nutrient Management Plan (NMP) Requirements and Elements:** All CAFO owners or operators shall implement and retain on site a Nutrient Management Plan developed by a certified Nutrient Management Planner in accordance with §10.1-104.2 of the Code of Virginia and approved by the Department of Conservation and Recreation. The NMP shall be made available to Department personnel upon request. The NMP shall address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus loss to ground or surface waters. The NMP shall be enforceable through this permit. The NMP shall contain at a minimum the following information:

a. Site map indicating the location of the waste storage facilities and the fields where waste will be applied, unless the fields are exempted in Part I C.6.;
b. Site evaluation and assessment of soil types and potential productivities;
c. Nutrient management sampling including soil and waste monitoring;
d. Storage and land area requirements;
e. Calculation of waste application rates;
f. Waste application schedules; and
g. A plan for waste utilization in the event the facility is discontinued.

Element i: Permit Part I C. 4. **Farm Operating Manual:** The Permittee shall identify, in the approved Farm Operating Manual, the specific records that will be maintained to document the implementation and management of the items in the Manual. These records shall be retained for a minimum of five years after the effective date of the permit and made available to Department personnel upon request.

Additionally, the requirements outlined in the Farm Operating Manual are to address any conditions that are not specified by the EPA CAFO Rule.

Permit Part II C 3

3. **Farm Operating Manual:** The Permittee shall develop and submit a Farm Operating Manual for approval by the Department within 90 days of the effective date of this permit. The Farm Operating Manual shall include at a minimum the following information:

a. identification of land features or structures where storm water will likely leave the production area(s) and enter surface waters of the state;
b. identification of land features or structures in the land application area(s) which will increase the risk of nitrogen and phosphorus transport to surface waters of the state; land features or structures include tile lines, pipes or ditches;
c. practices and procedures which will be followed to ensure that the waste storage facilities are designed and operated in accordance with Parts II A. and B. of this permit;
d. practices, procedures and applicable BMPs which will be utilized to ensure compliance with the requirements of this permit (including those BMPs listed in Table 2 of Part I B.1.b. and those required by Part III B.2.) including but not limited to the following:
(1) if applicable, identification of the location of BMP(s) that are installed or will be installed at the CAFO facility, for BMP(s) that will be installed include the expected timeframe for installation;
(2) specification of appropriate maintenance that will be performed for each BMP(s);
(3) specification of the steps that will be taken in the event that a BMP(s) is found deficient,
(a) as a result of the visual inspections as required by Part I B.1.b., or
(b) as a result of other routine inspections, as prescribed by the Farm Operating Manual, of BMP(s) utilized or installed in accordance with Part III B.2.

The steps shall include any actions that will be taken to correct deficiencies in accordance with Part I C.2.b.

e. practices and procedures which will be followed to ensure that all equipment needed for the proper operation of the permitted facilities is maintained in good working order, including but not limited to the following:

(1) retention of the equipment manufacturer's operation and maintenance manuals or other reference source to allow for timely maintenance and prompt repair of equipment when appropriate; and

(2) specification of the frequencies of inspections in order to detect leaks on equipment used for liquid manure handling and land application; and

f. an emergency plan which includes appropriate procedures for employees to follow in case of an emergency such as; an unauthorized discharge of manure, from the production area or catastrophic animal mortality. The emergency plan must include appropriate information for assistance with the particular emergency and must include contact information for local, state and federal agencies required to be notified in the case of any of the above mentioned events;

g. practices, procedures and methods which will be followed to monitor and analyze waste;

h. practices, procedures and methods which will be used to manage solids in the waste storage or treatment facilities; and

e. i. practices, procedures and methods which will be followed to ensure that chemicals and other contaminants handled at the facility are not disposed of in any manure, process wastewater, or storm water storage or treatment system unless such systems are specifically designed to treat such chemicals and other contaminants.

The Permittee shall operate the CAFO facility in accordance with the approved Farm Operating Manual which becomes an enforceable part of the permit. Any changes in those practices and procedures shall be documented and submitted to the Department for staff approval within 90 days of the effective date of the changes. The existing manual shall continue to be implemented until the revised manual is approved by the Department. Upon approval of submitted manual changes, the revised manual becomes an enforceable part of the permit. Noncompliance with the approved manual shall be deemed a violation of the permit.